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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,866	11/26/2002	Muthuvelan Varadharajulu	129716	3390

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EXAMINER

SANTOS, ROBERT G

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,866

Applicant(s)

VARADHARAJULU ET AL.

Examiner

Robert G. Santos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-18 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 13, 15, 16 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Nonaka et al. '760. With regards to claims 11 and 25, Nonaka et al. disclose the claimed limitations of a method for positioning a patient (10) for medical applications, the method comprising vertically positioning (through element 40) a patient positioning table surface (20) to a desired height to allow a patient to be loaded onto the patient positioning surface; rotating the patient positioning surface (through elements 70 and 80) to allow a patient to be loaded onto the patient positioning surface; loading a patient on the patient positioning surface (as shown in Figures 2-4 & 9-13); positioning the patient for a medical procedure, the positioning step comprising at least one of rotating, lifting, lateral motion, longitudinal motion, and longitudinal tilting of the patient positioning surface (as described in column 8, line 6-43); and maintaining a region of interest of the patient in an image area during a procedure involving tilting movement of the patient positioning surface (as described in column 6, lines 36-41; column 9, lines 7-17; column 11, lines 65-67; and column 12, lines 1-3 & 14-17). As concerns claim 13, the reference also discloses the step of returning the patient positioning surface to a horizontal starting position for emergency situations (see column 6, lines 42-51 & 63-67; column 7, lines 1-3; column 10,

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lines 60-67; and column 12, lines 30-33). With regards to claim 15, the reference is considered to show the step of locking the patient positioning surface during the medical procedure in column 10, lines 54-57. As concerns claim 16, the reference also discloses the step of manually moving the patient positioning surface in at least one of the lateral and longitudinal directions (see column 13, lines 19-21). With further regards to claim 25, the reference is also considered to show the use of a base (115) attaching the table to a floor (114) and a user interface for controlling movement of the table in Figure 12; column 8, lines 66-67; column 9, lines 1-17; column 10, lines 43-48; and column 12, lines 42-44).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 4 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Pattee '428 (note especially Figures 1-7; column 3, lines 25-67; column 4; and column 5, lines 1-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 6, 9, 10, 17 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al. '760 in view of Uosaki et al. '893. Nonaka et al. are considered to show all of the claimed limitations as recited in claims 1, 2, 5, 6, 9, 10, 17 and 20-24 except for a longitudinal subsystem including a rack and pinion mechanism. Uosaki et al. provide the basic teaching of a patient positioning system having a longitudinal subsystem including a rack and pinion mechanism (92A and 96) (see Figure 8 and column 5, lines 38-68). The skilled artisan would have found it obvious at the time the invention was made to provide the patient positioning system of Nonaka et al. '760 with a longitudinal subsystem including a rack and pinion mechanism in order to provide an alternate conventional means for longitudinally moving the patient positioning surface as desired.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al. '760 in view of Kamata '600. Nonaka et al. do not specifically disclose the use of a lift subsystem including a two-stage synchronized telescopic lift system. Kamata '600 provides the basic teaching of a patient positioning system comprising a lift subsystem including a two-stage synchronized telescopic lift system (100) (see Figures 5A & 5B and column 3, lines 15-42). The

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skilled artisan would have found it obvious at the time the invention was made to provide the patient positioning system of Nonaka et al. '760 with a lift subsystem including a two-stage synchronized telescopic lift system since this type of lift system reduces the minimum height of the patient positioning surface, thereby facilitating loading of a patient thereon as well as allowing for smooth elevation of the patient positioning surface (see Kamata '600, column 1, lines 44-47 and column 5, lines 22-25).

Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al. '760 in view of Uosaki et al. '893 and further in view of Velazquez '571. Nonaka et al. '760, as modified by Uosaki et al. '893, do not specifically disclose the use of patient restraints. Velazquez '571 provides the basic teaching of a patient positioning system (10) provided with patient restraints (12, 14) to minimize body motion of a patient during an imaging procedure "so as to ensure high image quality" (see Velazquez '571, column 1, lines 11-21, 27-34, & 44-47). Since it would be advantageous to collect data having good image quality during a routine patient imaging procedure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the patient positioning system of Nonaka et al. '760, as modified by Uosaki et al. '893, to include patient restraints as taught by Velazquez '571.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al. '760 in view of Pattee '428. Nonaka et al. do not specifically disclose the step of unloading the patient from the patient positioning surface. Pattee '428 discloses a method for positioning a patient for medical applications which includes the step of unloading the patient from the patient positioning surface (see column 4, lines 27-29). The skilled artisan would have found it obvious

at the time the invention was made to unload the patient from the patient positioning surface of Nonaka et al. '760 in order to indicate completion of the medical procedure as taught by Pattee '428.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al. '760 in view of Velazquez '571. Nonaka et al. do not specifically disclose the step of securing the patient to the patient positioning surface. Velazquez '571 provides the basic teaching of a patient positioning system (10) provided with patient restraints (12, 14) to minimize body motion of a patient during an imaging procedure "so as to ensure high image quality" (see Velazquez '571, column 1, lines 11-21, 27-34, & 44-47). Since it would be advantageous to collect data having good image quality during a routine patient imaging procedure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the patient positioning system of Nonaka et al. '760 to include patient restraints as taught by Velazquez '571.

Response to Amendment

Applicants' arguments with respect to the Pfleger '356 and Sicek et al. '018 references have been considered but are moot in view of the new ground(s) of rejection. Moreover, the examiner respectfully maintains that the Nonaka et al. '760 patent (as well as the combination of the Nonaka et al. '760 and Velazquez '571 references) still discloses the step of maintaining a region of interest of the patient during a procedure involving movement of the patient positioning

surface and the use of a table for positioning a patient where a region of interest of the patient is maintained in an image area during tilt as stated above.

Allowable Subject Matter

Claims 8 and 19 are allowed as indicated in the previous Office action filed February 2, 2004.

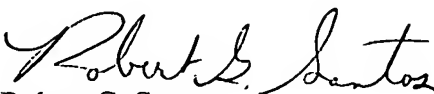
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Varadharajulu et al. '804, Amann et al. '188, Weil et al. '429, Weil et al. '419, Reinke '582, Pfeuffer et al. '909, Kitamura '776, Hasegawa '844, Masuzawa '585, Ishikawa '889, Schwehr et al. '072, Wright '222, Horsey '019 and Cesar '204, .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert G. Santos whose telephone number is (703) 308-7469. The examiner can normally be reached on Tues-Fr and first Mondays, 10:30 a.m. to 8:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Robert G. Santos
Primary Examiner
Art Unit 3673

R.S.
August 23, 2004